



July Newsletter

Welcome to "In Realtime" the Bannister Lake newsletter. Real-time data and its impact on the broadcast industry, and communications in general, has never been more significant. This newsletter will help keep you up to date with goings on at Bannister Lake as we develop new functionality and capabilities for our products. It will examine how real-time data can be fully leveraged to drive new business and transform workflows. The newsletter will also be discussing noteworthy recent and historical projects and provide industry thought leadership. We welcome your feedback. Please contact us at info@bannisterlake.com

Bannister Lake Announces Partnership with Traffic Camera Provider Vizzion

BL is increasing its data capabilities by partnering with Vancouver's Vizzion. Vizzion will be providing us with access to over 64,000 traffic cameras in 43 countries. For broadcasters and digital signage operators the combination of Chameleon data management and Vizzion data means unprecedented access to traffic cameras providing audiences with up to the second traffic and road conditions.

Product Development:

The development team at Bannister Lake has been incredibly busy refining our software solutions and adding new capabilities. Here are some highlights:

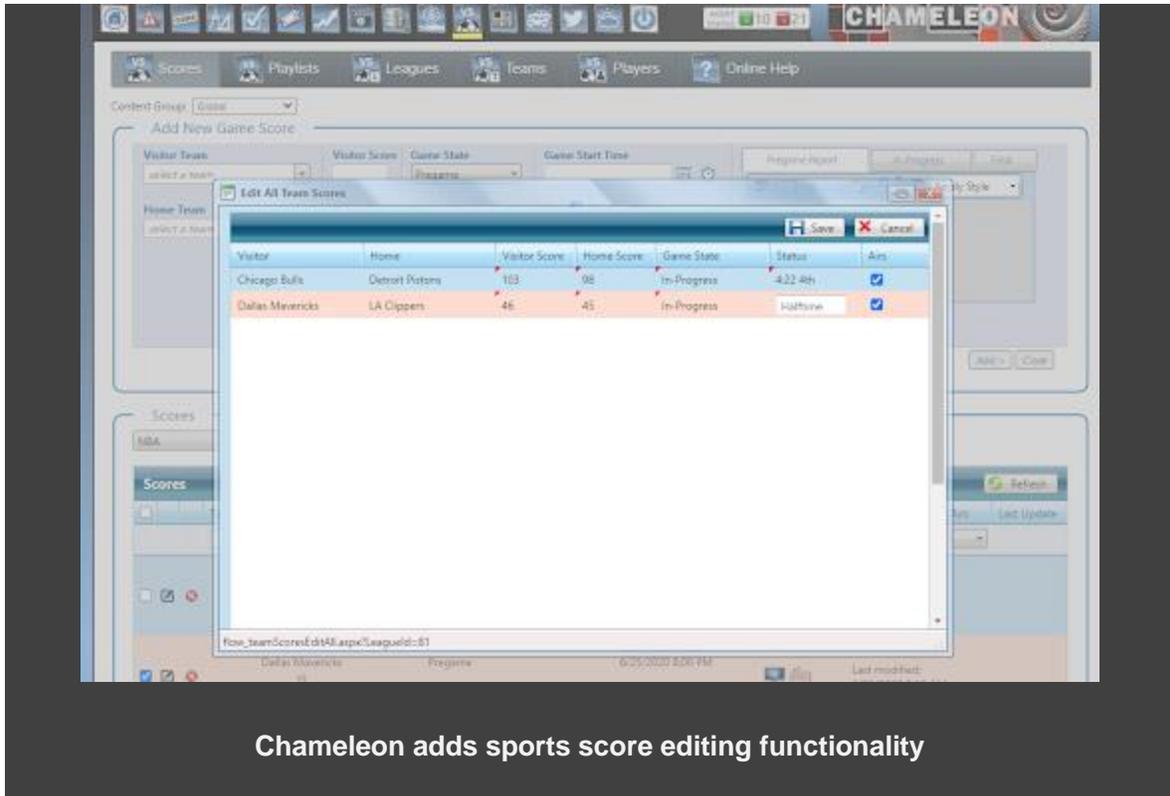
SQL is an essential component of Bannister Lake's software suite and we are now supporting MySQL 8.0. SQL is ingrained in Chameleon's DNA and sits at the core of Bannister Lake's unique relational database processes. 8.0 adds new features such as Common Table Expressions, Window Functions, Invisible Indexes, regexp (or Regular Expression) and an improved Data Dictionary. All these improvements translate into dramatically enhanced Chameleon performance.

Another important development is in the area of dynamic tags. Dynamic tags are an innovative Chameleon feature allowing a user to supplement existing data with an unlimited number of customized dynamic fields. Dynamic field content can be automatically populated with an integrated data feed or populated manually. We have expanded the options for dynamic tags by now supporting both media content and JSON.



There are several improvements in workflow and convenience that will speed up the graphic production process. Gears, the BL utility used to publish graphics is now built directly into Chameleon Designer. Users no longer have to leave Designer to publish graphics. Another important step in speeding up workflows directly from Designer is we now publish web graphics directly to the server automatically. Instead of copying and pasting a project modification to each web server system, the web server can now grab the changes. This can be scheduled or performed manually. We're taking this a step further by alerting the web server that there's new graphics available. This feature is especially important for signage customers looking to automatically update content.

BL has added a convenient new feature for editing sports scores. Users can quickly change sports scores directly in a grid/spreadsheet format within the Chameleon UI.



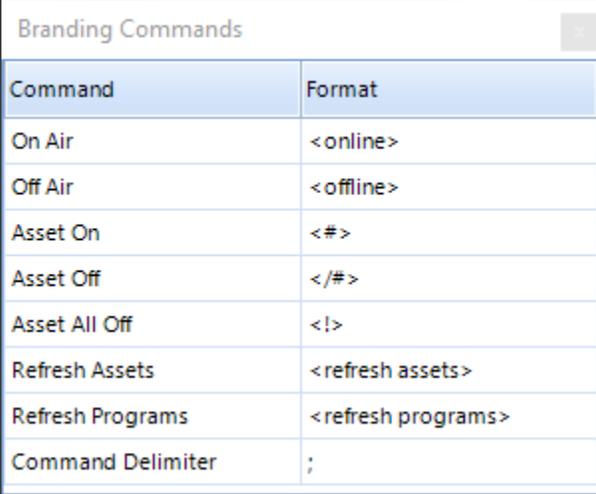
Chameleon adds sports score editing functionality

We have also been busy developing new data readers. BL now supports Vizzion's traffic camera feeds (see the Vizzion story) and data from the National Hurricane Center.



National Hurricane Center Data integrated into Chameleon

Other product developments include ticker player support for multiple time zones, support for IP commands for both election and branding players.



Command	Format
On Air	<online>
Off Air	<offline>
Asset On	<#>
Asset Off	</#>
Asset All Off	<!>
Refresh Assets	<refresh assets>
Refresh Programs	<refresh programs>
Command Delimiter	;

Branding player now supports IP commands

Custom Development: Experts in Tailor-Made Solutions

Bannister Lake's expertise in creating custom solutions allows our clients to introduce innovative technology that fully leverages real-time data. Our team has an impressive track record of utilizing our skills as software developers to solve production and business problems, create more efficient workflows and generate value for our clients. Some great examples include:

- The launch of QR codes in on-air presentation for a major home shopping network. This allowed viewers to scan the QR codes and be taken directly to a product page to complete a sale quickly and painlessly.

Bannister Lake introduced a workflow where the QR codes were tied to the creation of the related on-air graphics supporting the product. This allowed the production control room to marry the appropriate QR code with the product effortlessly.

-Bannister Lake has developed several custom financial data applications for various broadcast clients. These solutions allow producers or on-air talent to quickly assess and call up market data and put charts and graphs to air instantly. BL ingests and integrates real-time financial data from various sources and builds the UI for users to call up the appropriate content.

-Our development teams are constantly creating custom real-time data readers to handle a wide variety of data sources. From traffic cameras, to sports statistics to pandemic related data, BL is always servicing our clients' editorial needs by ensuring that data is read and organized properly.

If you are considering using real-time or static data on-air, online, streamed, within a mobile application or as part of a signage project, contact us at info@bannisterlake.com

Streaming Webinar

Bannister Lake's vice-president of sales, D'Arcy Pickering hosted a timely and relevant webinar in June discussing Chameleon integration into popular streaming solutions. Streaming has become an integral method of content distribution as media organizations reassess their business models and audience segmentation. Having the ability to add real-time data into streams is an innovative and opportune way to build audience. The webinar looked at BL's web and NDI players and how they can be incorporated into solutions such as vMix, OBS, Wirecast and Tricaster. A

recording of the webinar can be found here:

https://www.youtube.com/watch?v=A_TOS3mfCQQ&feature=youtu.be

BL is planning webinars for July and August focussing on Chameleon integration into Chyron Prime. Watch your email and social media for details.

Industry Insights: Change is Afoot

The pandemic has had a dramatic and paradoxical impact on the media industries. Ad sales are down, but viewership is up. Sports, the life blood of the broadcast industry is stuck in a climate of uncertainty, but innovation is way up. The move away from studio environments to broadcasting from home has unleashed an incredible amount of creative thinking. In a short period of time late night talk shows have mastered bringing in remote guests via video conferencing and news organizations are writing, editing video and packaging content from kitchens and spare bedrooms everywhere.

The changes the pandemic has brought on will undoubtedly continue when things “normalize”, whatever that means. Broadcast companies will certainly be looking at the cost-effectiveness of the workflow and technology changes that have emerged. The industry is already promoting the concept of microservices as a way for stations and networks to cherry pick specific technical services and no longer pay for products and services that add little value to their production processes. Large media companies are considering or have already decided to implement inexpensive desktop computers as alternatives to expensive graphic engines. Streaming software has suddenly become incredibly popular as more and more content creators turn to laptop-based production solutions to keep connecting with audiences.

At Bannister Lake our web-based data aggregation and management solution, Chameleon fits in beautifully with this new paradigm. As a cloud-based solution it provides a virtualized way for producers and engineers to integrate live data into their productions. It is a one-stop solution covering all of a content creator's data needs. As a microservice, producers can choose to focus on specific content sources such as news, sports, elections, or a community event calendar. Most importantly the solution can playout as IP, SDI, NDI or HTML5, or can feed data to other devices using common data formats like JSON, XML, CSV and more. Chameleon provides the flexibility required in these uncertain times providing a solution for broadcast, streaming, web sites, social or mobile applications-separately or simultaneously.

As these times have shown us, real-time has never been more important to audiences. As the broadcast industry continues to adjust to new realities, Chameleon provides a solution that fits in with the revolutionary transformations going on and will continue to provide incredible value post pandemic.

For more information about Chameleon and Bannister Lake please
visit

<https://bannisterlake.com/>